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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,603

12/28/2005

Christian Monereau

Serie 6343

3684

40582

7590

10/14/2008

AIR LIQUIDE

Intellectual Property

2700 POST OAK BOULEVARD, SUITE 1800

HOUSTON, TX 77056

EXAMINER

HOPKINS, ROBERT A

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,603	<b>Applicant(s)</b> MONEREAU ET AL.	
	<b>Examiner</b> Robert A. Hopkins	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12-28-05</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

Claims 12-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites “compressing it more or less to the first pressure”. Examiner is unclear as to what the word “it” refers to in the claim. Also the phrase “more or less” is indefinite because the scope of “more or less” is not clearly defined in the claim or the specification. Claims 13-22 depend on claim 12 and hence are also rejected.

Claim 12 recites “injecting it by way of additional feedstock”. Examiner is unclear as to what the word “it” refers to in the claim.

Claim 13 recites “characterized in that it involves”. Examiner is unclear as to what the word “it” refers to in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 12-22 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Al-Babtain(7252702).

Al-Babtain teaches a method for producing hydrogen by pressure swing adsorption in a PSA unit(100) of a feedstock gas(70) at a first pressure P1 containing hydrogen, with compressed waste being sent to a fuel gas mixture distribution network at a second pressure lower than the pressure P1 and containing hydrogen, involving the step of tapping off a fraction of the fuel gas mixture(conduit 10) flowing through the network, of compressing the fuel gas mixture to the first pressure(conduit 110) and injecting it by way of additional feedstock gas into the PSA unit(100). Al-Babtain further teaches wherein it involves the step of injecting the fraction of fuel gas into the feedstock gas. Al-Babtain further teaches the first pressure ranges between about 15 and 45 bar and the second pressure ranges between about 3 and 8 bar. Al-Babtain further teaches wherein the waste is extracted from the pressure swing adsorption unit at a third pressure ranging between about 1.1 and 2 bar. Al-Babtain further teaches wherein the fuel gas mixture contains at least 30% hydrogen. Al-Babtain further teaches wherein the fuel gas mixture contains between about 35 and 50 percent hydrogen. Al-Babtain further teaches an installation for implementing the method of claim 12 comprising at least one feedstock gas supply pipe, at least one line of a fuel gas mixture distribution network, at least one PSA unit for separating gases by adsorption having one inlet connected to the feedstock gas pipe, a production gas outlet and at least one waste gas outlet, a first compressor connecting the waste gas outlet to the line, and a second compressor connecting the line to the inlet of the PSA unit. Al-

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Babtain further teaches wherein the second compressor is placed in a pipe connecting the line to the feedstock gas pipe. Al-Babtain further teaches wherein the second compressor is connected to the line upstream of the latter's connection to the first compressor. Al-Babtain further teaches wherein the first and second compressor use common subassemblies. Al-Babtain further teaches wherein the first and second compressors have a common driveline.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert A Hopkins/  
Primary Examiner, Art Unit 1797